

Title (en)

Process for preparing fluoroalkyl functional group containing silane coatings

Title (de)

Verfahren zur Herstellung Fluoroalkyl funktionalisierter Silanbeschichtungen

Title (fr)

Procédé de préparation de revêtements de silanes ayant des groupes fonctionnels fluoroalkyles

Publication

EP 1197539 A2 20020417 (DE)

Application

EP 01121084 A 20010903

Priority

DE 10050064 A 20001010

Abstract (en)

Preparation of coating compositions comprises hydrolytically condensing an organic modified silane, a metal compound and an organic modified silane. Preparation of coating compositions comprises hydrolytically condensing an organic modified silane of formula (I), a metal compound of formula (II) and/or (III) and an organic modified silane of formula (IV). $R^mSiX(4-m)$ (I) AlR_3 (II) MR_4 (III) $R'''^mSiX(4-m)$ (IV) Where compound (II) and/or (III) is present from 5-75 mol.% of the mole total of the composition. X = H, halogen, alkoxy, acyloxy, alkylcarbonyl, alkoxy carbonyl or -NR''²; R'' = H, and/or alkyl; R', R''' = Alkyl, alkenyl, alkynyl, alkylaryl, aryl, arylalkyl, arylalkenyl, alkenylaryl, arylalkynyl, alkynylaryl, whereby such groups may be interrupted with an O, S or -NR'' group, and may be substituted with one or more groups selected from halogen, and optionally substituted amino, amido, aldehyde, keto, alkylcarbonyl, carboxy, mercapto, cyano, hydroxy, alkoxy, alkoxy carbonyl, sulfonic acid, phosphoric acid, (meth)acryloxy, epoxy, or vinyl group; m = 1, 2 or 3; M = Zirconium or titanium; and R = Halogen, alkyl, alkoxy, acyloxy, hydroxy or a chelating ligand.

Abstract (de)

Die Erfindung betrifft ein Verfahren zur Herstellung Fluoroalkyl-funktionalisierter hybridpolymerer Beschichtungen mit niedriger Oberflächenenergie und geringer Verschmutzungsneigung. Als Bestandteile der Beschichtungszusammensetzung dienen dabei organisch modifizierte Silane, Metallverbindungen der Formel AlR_3 oder MR_4 und zumindest teilweise fluorierte organisch modifizierte Silane.

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